FORM 10 APPLICATION FOR ACCESS TO INFORMATION UNDER PROTECTIVE ORDER BY EXPERT CONSULTANT OR WITNESS

United States Court of Federal Claims

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BLUE ODICIN FEDERATION I.I.O.)
BLUE ORIGIN FEDERATION, LLC ,) No. 1:21 ov 01605 DAH
Plaintiff,) No. <u>1:21-cv-01695-RAH</u>)
,) Judge Richard A. Hertling
v.)
THE UNITED STATES,)
Defendant.)

APPLICATION FOR ACCESS TO INFORMATION UNDER PROTECTIVE ORDER BY EXPERT CONSULTANT OR WITNESS

- 1. I, the undersigned, am an <u>aerospace engineer</u> with <u>self-employed</u> and hereby applyfor access to protected information covered by the Protective Order issued in connection with this proceeding.
- 2. I have been retained by <u>Barnes & Thornburg LLP</u> and will, under the direction and control of <u>Scott E. Pickens</u>, assist in the representation of <u>Blue Origin Federation</u>, <u>LLC</u> in this proceeding.
- 3. I hereby certify that I am not involved in competitive decision making as discussed in *U.S. Steel Corp. v. United States*, 730 F.2d 1465 (Fed. Cir. 1984), for or on behalf of any party to this proceeding or any other firm that might gain a competitive advantage from access to the information disclosed under the protective order. Neither I nor my employer provides advice or participates in any decisions of such parties in matters involving similar or corresponding information about a competitor. This means, for example, that neither I nor my employer provides advice concerning, or participates in decisions about, marketing or advertising strategies, product research and development, product design or competitive structuring and composition of bids, offers, or proposals with respect to which the use of protected information could provide a competitive advantage.
- 4. My professional relationship with the party for whom I am retained in this proceeding and its personnel is strictly as a consultant on issues relevant to the proceeding. Neither I nor any member of my immediate family holds office or a management position in any company that is a party in this proceeding or in any competitor or potential competitor of a party.
 - 5. I have attached the following information:
 - a. a current resume describing my education and employment experience to date;
 - b. a list of all clients for whom I have performed work within the two years prior to the date of this application and a brief description of the work performed;
 - c. a statement of the services I am expected to perform in connection with this proceeding;

- d. a description of the financial interests that I, my spouse, and/or my family has in any entity that is an interested party in this proceeding or whose protected information will be reviewed; if none, I have so stated;
- e. a list identifying by name of forum, case number, date, and circumstances all instances in which I have been granted admission or been denied admission to a protective order, had a protective order admission revoked, or have been found to have violated a protective order issued by an administrative or judicial tribunal; if none, I have so stated; and
- f. a list of the professional associations to which I belong, including my identification numbers.
- 6. I have read a copy of the Protective Order issued by the court in this proceeding. I will comply in all respects with all terms and conditions of that order in handling any protected information produced in connection with the proceeding. I will not disclose any protected information to any individual who has not been admitted under the Protective Order by the court.
- 7. For a period of 10 years from the date this application is granted, I will not engage or assist in the preparation of a proposal to be submitted to any agency of the U.S. Government, international government agency, or commercial entity for, or relating to, systems or components supporting or involving human or cargo launch, landing, low earth orbit, or other spaceflight related activities, nor will I provide consulting or other services related to these systems or components, except the provision of protest or litigation support services shall not be prohibited.
- 8. For a period of 10 years from the date this application is granted, I will not engage or assist in the preparation of a proposal for submission to any U.S. Government agency for, or related to, human landing systems (including without limitation NASA's future Lunar Exploration Transportation Services (LETS) solicitation and NASA's Appendix N solicitation), nor will I have any personal involvement in any such activity, nor will I provide consulting or other services related to human landing systems for any company pursuing or awarded a contract for such systems, except the provision of protest or litigation support services shall not be prohibited. Human landing systems include, without limitation, systems and related components involved in transporting humans to orbit or to the surface of other celestial bodies.
- 9. I acknowledge that a violation of the terms of the Protective Order may result in the imposition of such sanctions as may be deemed appropriate by the court and in possible civil and criminal liability.

* * *

By my signature, I certify that, to the best of my knowledge, the representations set forth above (including attached statements) are true and correct.

8/27/2021

Signature
Alan Wilhite
Typed Name and Title
757-870-5673
Telephone Number
awwilhite7@gmail.com
E-mail Address

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s/S.E. Pickens	August 27, 20
Signature of Attorney of Record	Date Executed
Scott E. Pickens, Attorney	
Typed Name and Title	

202-371-6349 & FAX: 202-289-1330

Telephone Number
Scott.pickens@btlaw.com

E-mail Address

Application for Dr. Alan Wilhite

Required information:

- a. Resume and publications submitted below
- b. I was retained by Scott Pickens of Barnes & Thornburg LLP to work on GAO Protest, case number B-419783.1, .3, July 30, 2021. I performed the same technical assistance work for Blue Origin Federation that I intend to perform in this case.
- c. No clients within the 2 years prior for whom the use of protected material could provide a competitive advantage.
- d. Under direction and control of Scott Pickens, Barnes & Thornburg LLP, I will assist in the technical representation of Blue Origin Federation, LLC in this protest.
- e. I, my spouse, and/or my family do not have any financial interest in any entity that is an interested party in this protest or whose protected material will be reviewed.
- f. I have only been admitted to a protective order once. I was admitted in the previous Blue Origin Federation protest at the Government Accountability Office, B-419783.1, .3, July 30, 2021. I have never been denied admission to a protective order, or had a protective order admission revoked, or been found to have violated a protective order issued by an administrative or judicial tribunal.
- g. Professional associations American Institute of Aeronautics and Astronautics (0062/24883)

RESUME Dr. Alan Wilhite

Dr. Wilhite has been retired from Georgia Tech since 2015 and from NASA since 2005.

Previously, Dr. Wilhite was the Langley Distinguished Professor of Advanced Aerospace Systems Architecture in the School of Aerospace Engineering at Georgia Institute of Technology 2004-2015). He served as the co-Director of the Georgia Tech Center for Aerospace Systems Engineering (CASE) and was the co-director of the Space Systems Design Laboratory. At Georgia Tech, he taught graduate classes and conducted research in systems engineering, space exploration systems, propulsion, robust design, aerodynamics, multidisciplinary optimization, operations, cost, and risk. He served as NASA's external chair for systems engineering strategic planning and supported NASA's Vision for Space Exploration as a team leader in the design, analysis, and optimization of complete space system architectures including reusable and expendable launch vehicles, lunar and Mars transfer vehicles using chemical and electric propulsion, lunar and Mars descent/landing systems, and Earth return vehicles. His pioneering research showed that commercial launch vehicles coupled with Earthorbiting propellant depots for lunar/Mars transfer vehicles could save 40 percent of the total life cycle costs for NASAs exploration program over the traditional use of a NASA dedicated launch system. He was a member of the International Astronautical Federation, International Council for Systems Engineering, and an AIAA Associate Fellow who has served on the AIAA Technical Committees -Space Transportation, Liquid Rocket Propulsion, and Computer Aided Design.

Dr. Wilhite was the Eminent Scholar in Systems Engineering and Simulation at the University of Alabama Huntsville (2001-2004). He supported the development of systems engineering plans and technology risk assessment for NASA's Next Generation Launch Technology Program developing system simulations to determine the impact of technologies on launch vehicle and space transfer vehicle performance. In 2004, he was awarded the NASA Turning Goals Into Reality (TGIR) award for systems analysis for developing the Probabilistic Operations Event Modeler (POEM) for launch operations assessment and fleet sizing for NGLT.

Dr. Wilhite managed the \$756M High Speed Research Program for NASA as the Director, Deputy Director, and Airframe Project Manager during the program (1993-1999). The technology development of the High-Speed Civil Transport included Flight Deck, Airframe Structures and Materials, Aerodynamic Performance, Propulsion and High Temperature Materials, and Systems Integration, Environmental Impact, Atmospheric Effects of Stratospheric Aircraft, and the Tu-144 Flight Tests. Dr. Wilhite set the objectives, identified/defined tasks, integrated technical elements, and managed technical accomplishments, schedules, and resources versus plan. To accomplish the program, the entire workforce of over 2000 engineers, scientists, and administrative support were trained in quality management that was applied to technical integration as well as project management, reporting, and meetings.

Dr. Wilhite was the Deputy Director of the Advanced Vehicle Division at NASA Langley (1992-93) that conducted aeronautical systems studies to support the Office of Aeronautics and its technology programs in the areas of subsonic aircraft, High-Speed Civil Transport, Advanced Aircraft, and multidisciplinary research. As deputy, he assisted in the management of four branches comprised of 105 scientists, engineers, and administrative staff. He was also the Phase I High Speed Research

Airframe Project Manager and the Langley focal point for planning, advocating, and coordinating aerodynamics, flight systems, materials and structures for Phase II.

Dr. Wilhite was the Head, Deputy Head, and researcher in the NASA-Langley Vehicle Analysis Branch (1969-1988) leading the advanced space transportation program supporting the Office of Space Flight and Office of Aeronautics and Exploration Technology. He managed a \$3M program and 24 civil servants, 20 contractors, and on-site grantees. The VAB had the Agency lead roles for Advanced Manned Launch Systems and supporting roles for Space Exploratory Initiative Mars Mission, aerobrake technology, and radiation shielding. Dr. Wilhite led the development of advanced computer-aided tools for the analysis and design of advanced aerospace vehicles. He also chaired the Code Q sponsored Reentry Subpanel for the Nuclear Safety Review Panel for Mission Safety Evaluation of Galileo spacecraft.

In 1984, Dr. Wilhite was Director of Technology Maturation for the National Aero-SpacePlane (NASP) Program that encompassed the disciplines of aerodynamics, computational fluids, propulsion, materials, structures, and flight systems and was conducted by NASA, Air Force, national laboratories, industry, and universities with an annual budget of \$78M. He established the prime NASP contractor reviews of the Technology Maturation Program for prioritizing, advocating, and developing new tasks. He initiated and established the NASP Materials Consortium, and the Slush Hydrogen Program.

Dr. Wilhite received his B.S. (1973) and Ph.D. (1985) degrees in aerospace engineering from North Carolina State University and his master's degree from George Washington University (1976). He has authored over 90 technical papers and journal articles.

B. Publications

Journal papers and NASA technical papers published

- 1. Wilhite, Alan W.: "Analysis of Separation of the Space Shuttle Orbiter from a Large Transport Airplane. NASA TM X-3492, June 1977.
- 2. Freeman, Delma C., Jr.; and Wilhite, Alan W.: "A Study of the Effect of Relaxed Static Longitudinal Stability on Single-Stage-to-Orbit Vehicle Design". NASA TP 1594, December 1979.
- 3. Wilhite, Alan W.: "Optimization of Rocket Propulsion Systems for Advanced Earth-to-Orbit Shuttles". Journal of Spacecraft and Rockets, March April 1980.
- 4. Martin, J. A.; and Wilhite, Alan. W.: "Dual-Fuel Propulsion: Recent Results for Earth-to-Orbit Vehicles". Journal of Spacecraft and Rockets, July August 1980.
- 5. Wilhite, Alan W.: "Advanced Rocket Propulsion Technology Assessment for Future Space Transportation", Journal of Spacecraft and Rockets, Vol. 19, No. 4, July August 1982.
- 6. Wilhite, Alan. W.: "Optimum Wing Sizing of a Single-Stage-to-Orbit Vehicle". Journal of Spacecraft and Rockets, Vol. 20, No. 2, March April, 1983.
- 7. Wilhite, Alan. W.; Bush, L. B.; Cruz, C. I.; Lepsch, R. A.; Morris, W. D.; Stanley, D. O.; Wurster, K. E.: "Advanced Technologies for Rocket Single-Stage-to-Orbit Vehicles". Journal of Spacecraft and Rockets, Vol. 28, No. 6, November December, 1991.
- 8. Stanley, D. O.; Wilhite, A. W.; Englund, W. C.; and Laube, J. R.: "Comparison of Single-Stage and Two-Stage Airbreathing Launch Vehicles". Journal of Spacecraft and Rockets, Vol. 29, No. 5, September October, 1992.
- 9. Freeman, D. C.; Wilhite, Alan. W.; and Talay, T. A.: "Advanced Manned Launch System Study Status". Space Technology, Vol. 13, No. 3, 1993.
- 10. Wilhite, Alan. W.; Englund, W. C.: ; Stanley, Douglas O.; Naftel, J. C.; Lepsch, R. A.; Bush, L. B.; and Wurster, K. E.: "Technology and Staging Effects on Two-Stage-to-Orbit Systems. Journal of Spacecraft and Rockets", Vol. 31, No. 1, January February, 1994.
- 11. Freeman, D. C.; Talay, T. A.; Stanley, Douglas O.; Lepsch, R. A.; and Wilhite, Alan. W.: "Design Options for Advanced Manned Launch Systems". Journal of Spacecraft and Rockets, Vol. 32, No. 2, March April, 1995.
- 12. Wilhite, A., and Shaw, R.J.: "Technology Development of High-Speed Civil Transport". The Aeronautical Journal of the Royal Aeronautical Society, Volume 104, Number 1040, Oct. 2000.
- 13. Shelton, Joey D.; Frederick, Robert A. Jr.; Wilhite, Alan W.: "Launch Vehicle Propulsion Design with Multiple Selection Criteria". Journal of Spacecraft and Rockets, Vol. 43, No. 4, July–August 2006.
- 14. Reeves, David M.; Scher, Michael D.; Wilhite, Alan W.; Stanley, Douglas O.: "Apollo Lunar Orbit Rendezvous Architecture Decision Revisited". Journal of Spacecraft and Rockets, Vol. 43, No. 4, July–August 2006.
- 15. Wilhite, Alan W. and Lord, Robert: "Estimating the Risk of Technology Development", Engineering Management Journal (EMJ), No. 3, September 2006.
- 16. Wilhite, Alan W.; Gholston, S.E.; Farrington, P.A.; and Swain, J.J.: "Evaluating Technology Projections and Weight Predictions Method Uncertainty of Future Launch Vehicles". Journal of Spacecraft and Rockets, Vol. 45, No. 3, May-June 2008.
- 17. Stanley, Douglas and Wilhite, Alan, "Technology Engineering the Concurrent Development of Space Transportation Systems and Technology," accepted to the Engineering Management Journal, April, 2009.

- 18. Arney, Dale and Wilhite, Alan: "Visualization of the Multi-Dimensional Human Interplanetary Mission Design Space." Engineering Note in Journal of Spacecraft and Rockets, Vol. 46, No. 6, November-December 2009.
- 19. Arney, Dale; Hickman, Joseph; Tanner, Philip; Wagner, John; Wilson, Marc; Wilhite, Alan: "The Gryphon: A Flexible Lunar Lander Design to Support a Lunar Outpost." Acta Astronautica, Volume 66, Numbers 7-8 April/May 2010.
- 20. Hickman, Joseph W.; Wilhite, Alan W.; and Stanley, Douglas O.; Komar, David R.: "Optimization of the Mars Ascent Vehicle for Human Space Exploration," submitted to the AIAA Journal of Spacecraft and Rockets.
- 21. Young, David A.; Wilhite, Alan W.: "A Methodology for Achieving Optimal Reliability and Cost in a Lunar Architecture," submitted to the International Journal of Reliability, Quality, and Safety Engineering.
- 22. Wilhite, Alan; Reeves, David; Stanley, Douglas; Thompson, Robert; Wagner, John.: "Evaluating the Impacts of Mass Uncertainty on Future Exploration Architectures," Submitted to Acta Astronautica.
- 23. Ciancilol, Alicia; Wilhite, Alan; et.al. Entry, Descent and Landing Systems Analysis Study: Phase 1 Report. NASA TM-2010-216720.
- 24. Arney, Dale and Wilhite, Alan. "Orbital Propellant Depots Enabling Lunar Architectures without Heavy Lift Launch Vehicles." AIAA Journal of Spacecraft and Rockets, Vol. 47 p353-360, 2010.

C. Other Publications

- 1. Decker, John P. and Wilhite, Alan W.: "Technology and Methodology of Separating Two Similar Size Aerospace Vehicles Within the Atmosphere. AIAA Paper No. 75-29, AIAA 13th Aerospace Sciences Meeting, Pasadena, CA., January 20 22, 1975.
- 2. Eldred, Charles E.; Rehder, John J.; and Wilhite, Alan. W.: "Nozzle Selection for Optimized Single-Stage Shuttles". IAF Paper No. 76-162, presented at the IAF 17th Congress International Astronautical Federation, October 10 16, 1976.
- 3. Wilhite, Alan W.: "Optimization and Evaluation of Main Liquid Rocket Propulsion Systems for Advanced Earth-to-Orbit Shuttles". AIAA Paper No. 78-972, presented at the AIAA/SAE 14th Joint Propulsion Conference, Las Vegas, NV, July 25 27, 1978.
- 4. Wilhite, Alan W. and Rehder, John J.: "AVID: A Design System for Technology Studies of Advanced Transportation Concepts", AIAA Paper No. 79-0872, presented at the Conference on Advanced Technology for Future Space Systems, Hampton, VA, May 8-11, 1979.
- 5. Martin, James A. and Wilhite, Alan W.: Dual-Fuel Propulsion: "Why it Works, Possible Engines, and Results of Vehicle Studies". AIAA Paper No. 79-878. Presented at the Conference of Advanced Technology for Future Space Systems, Hampton, VA, May 8 11, 1979.
- 6. Wilhite, Alan W.: "The Aerospace Vehicle Interactive Design System". AIAA Paper No. 81-0233. Presented at the AIAA 19th Aerospace Sciences Meeting, St. Louis, MO, January 12 15, 1981.
- 7. Wilhite, Alan W.: "The Aerospace Vehicle Interactive Design System". NASA TM No. 81957. February 1981.
- 8. Wilhite, Alan W.: "Optimum Wing Sizing of a Single-Stage-to-Orbit Vehicle". AIAA Paper 82-0174. Presented at the AIAA 20th Aerospace Sciences Meeting, Orlando, FL,

- January 11 14, 1982.
- 9. Wilhite, Alan W. and Johnson, S. C.: "Integrating Computer Programs for Engineering Analysis and Design". AIAA Paper No.83-0597. Presented at the AIAA 21st Aerospace Sciences Meeting, Reno, NV, January 10 13, 1983.
- 10. Arrington, James P. and Wilhite, Alan W.: "Second-Generation Space Shuttle". Presented at the Twentieth Space Congress, Cocoa Beach, FL, April 26 28, 1983.
- 11. Wilhite, et. al.: "Future Space Transportation System". Astronautics and Aeronautics. Vol. 21, No. 6, June 1983.
- 12. Wilhite, Alan W.; Arrington, James P.; and McCandless, R. S.: "Performance Aerodynamics of Aero-Assisted Orbital Transfer Vehicles". AIAA Paper No. 84-0406. Presented at the AIAA 22nd Aerospace Sciences Meeting, Reno, NV, January 9 12, 1984.
- 13. Naftel, J. Christopher; Wilhite, Alan W.; and Cruz, Christopher I.: "Analysis of Separation of a Two-Stage Winged Launch Vehicle". AIAA Paper No. 86-0195. Presented at the AIAA 24th Aerospace Sciences Meeting, Reno, NV, January 6 9, 1986.
- 14. Cunningham, Mark J.; Freeman, Delma C.; Wilhite, Alan W.; and Powell, Richard: "Thrust Vectoring for Single-Stage-To-Orbit, Horizontal Takeoff, Horizontal Landing, Space Vehicles". AIAA Paper No. 86-1414. Presented at the AIAA 22nd Joint Propulsion Conference, June 16 18, 1986.
- 15. McMillin, M. L.; Rehder, J. J.; Wilhite, A. W.; Schwing, and J. L.; Mills, J. C.: "A Solid Modeler for Aerospace Vehicle Preliminary Design". Presented at the Aircraft Design and Operations Meeting, St. Louis, MO, September 14 16, 1987.
- 16. Cruz, Christopher I. and Wilhite, Alan W.: "Prediction of High-Speed Aerodynamic Characteristics Using the Aerodynamic Preliminary Analysis System (APAS)". AIAA Paper No. 89-2173. Presented at the AIAA 7th Applied Aerodynamics Conference, Seattle, WA, July August, 1989.
- Wilhite, Alan W.; Powell, Richard W.; Scotti, Stephen J.; McClinton, Charles R; Pinckney, Zane S.; Cruz, Christopher I; Jackson, Robert L.; Hunt, James L.; Cerro, Jeffrey A.; and Moses, Paul L.: "Concepts Leading to the National Aero-Space Plane Program". AIAA Paper No 90-0294. Presented at the 28th Aerospace Sciences Meeting, Reno, NV, January 8 11, 1990.
- 18. Freeman, Delma C., Jr.; Talay, Theodore A.; Stanley, Douglas O.; and Wilhite, Alan W.: "Design Options for Advanced Manned Launch Systems (AMLS)". AIAA Paper No 90-3816. Presented at the AIAA Space Programs and Technologies Conference, Huntsville, AL, September 25 28, 1990.
- 19. Wilhite, Alan W.; Bush, Lance B.; Cruz, Christopher I.; Lepsch, Roger A.; Morris, W. Douglas; Stanley, Douglas O.; and Wurster, K. E.: "Advanced Technologies for Rocket Single-Stage-to-Orbit Vehicles". AIAA Paper No. 91-0540. Presented at the AIAA 29th Aerospace Sciences Meeting, January 7 10, 1991.
- 20. Wilhite, A. W.: "Technology and Staging Effects on Two-Stage-to-Orbit Systems". AIAA Paper No. 91-3181. Presented at the Aircraft Design and Systems and Operations Meeting, Baltimore, MD, September 23 25, 1991.
- 21. Stanley, D.; Engelund, W.; Wihite, A.; and Laube, J.: A Comparison of Single-Stage and Two-Stage Airbreathing Launch Vehicles at High Staging Mach Numbers". AIAA Paper No. 91-5014. Presented at the Third International Aerospace Planes Conference, Orlando, FL, December 3 5, 1991.
- 22. Wilhite, Alan W.; Gholtson, Sampson E.; Farrington, Phillip A.; Swain, James J.: "Evaluating Technology Impacts on Mission Success of Future Launch Vehicles". Paper

- No. IAF-01-V.4.04. Presented at the 52nd International Astronautical Congress, Toulouse, France, October 1-5, 2001.
- 23. Wilhite, Alan W., McKinney, Leon, Farrington, Phillip A., Lovell, Neal T.: "Launch System Trajectory Performance Modeling and Sensitivity Analysis Using Response Surface Methods." Presented at the AIAA Joint Propulsion Conference, July 2003.
- 24. Wilhite, A; Odom, Pat; Lovell, Neal; Lord, Robert: "Estimating the Risk of Technology Development". Presented at the American Society of Engineering Management, September 2003.
- 25. Wilhite, Alan W.; Pine, David: "Top-Down Manpower Estimating Based on Historical Program Experience". Presented at the AIAA/NASA 1st Space Exploration Conference: Continuing the Voyage of Discovery, January 1 February 2005.
- 26. Bucher, Dean; Reeves, David; Roithmayr, Carlos; Scher, Michael; Shidner, Jeremy; Thomas, Paige D.; Wilhite, Alan; Stanley, Douglas O.: "Full Concept Architecture for Human Lunar Exploration". Presented at the Revolutionary Aerospace Concepts Conference, May 2005.
- 27. Reeves, David M.; Scher, Michael D.; Wilhite, Alan W.: "The Apollo Lunar Orbit Rendezvous Architecture Decision Revisited". Presented at the 41st AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, 10 13 July 2005.
- 28. Shelton, Joey D.; Frederick, Robert A.; Wilhite, Alan. W.: "Launch Vehicle Propulsion Design with Multiple Selection Criteria". Presented at the 41st AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, 10 13 July 2005.
- 29. David A. Young, Zachary C. Krevor, Christopher Tanner, Robert W. Thompson, and Alan W. Wilhite. Crew Launch Vehicle (CLV) Independent Performance Evaluation. Presented at the Georgia Tech Space Systems Engineering Conference, Nov 8-10, 2005.
- 30. Cavanaugh, S.; Arcara, P.; Shockcor, J.; Wilhite, A.; Stanley, D.; Chytka, T.; and Jones, S.: "NASA Langley Systems Analysis and Concepts Directorate Technology Assessment/Portfolio Analysis". AIAA-2006-7029, presented at the 11th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference, Portsmouth, Virginia, Sep. 6-8, 2006.
- 31. Stanley, Douglas O.; Wilhite, Alan W.: "Technology Engineering: The Concurrent Development of Space Transportation Systems and Technologies". AIAA-2006-7295, presented at the Space 2006, San Jose, California, Sep. 19-21, 2006.
- 32. Simon, M.; Wilhite, A.; Young, J.: "Evaluation of Applications of ESAS Cargo Launch Vehicle to Manned Mars Mission". AIAA-2006-7434, presented at the Space 2006, San Jose, California, Sep. 19-21, 2006.
- 33. Wilhite, A.; Reeves, D.: "Evaluating the Impacts of Mass Uncertainty on Future Exploration Architectures". AIAA-2006-7250, presented at the Space 2006, San Jose, California, Sep. 19-21, 2006.
- 34. Young, J., Thompson, R., and Wilhite, A., "Architecture Options for Propellant Resupply of Lunar Exploration Elements," AIAA 2006-7237, AIAA Space 2006, San Jose, California, Sep 2006.
- 35. Simon , Matthew; Bemis, Eammon; Hough, Steven; Jefferies, Sharon; Penuela, David; Winski, Rick; Zaleski, Kristina; and Wilhite, Alan. Investigation of Alternate Transportation Architecture for Crewed Mars Missions. IAC-06-D2.2.09. Presented at the 57th International Astronautical Congress, October 2006.
- 36. Tanner, Christopher; Young, James; Thompson, Robert; Wilhite, Alan: On-Orbit Propellant Resupply Options for Mars Exploration Architectures. IAC-06-D1.1.01. Presented at the

- 57th International Astronautical Congress, October 2006.
- 37. Krevor Zachary C.; Wilhite, Alan W.: Cost of Safety for Space Transportation. IAC-06-D1.1.08. Presented at the 57th International Astronautical Congress, October 2006.
- 38. Young, D.; Kokan, T.; Tanner, C.; Clark, I.; Tanner, C.; Wilhite, A.: Lazarus: A SSTO Hypersonic Vehicle Concept Utilizing RBCC and HEDM Propulsion Technologies. AIAA-2006-8099. Presented at the 14th AIAA/AHI Space Planes and Hypersonic Systems and Technologies Conference, Canberra, Australia, Nov. 6-9, 2006
- 39. Krevor, Zachary C.; Wilhite, Alan: Launch Vehicle Engine Selection Using Probabilistic Techniques. AIAA-2007-1961, presented at the 48th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Honolulu, Hawaii, Apr. 23-26, 2007.
- 40. Young, David A.; Wilhite, Alan: A Resource Allocation Method for Achieving Optimal Reliability in a Lunar Architecture. AIAA-2007-1862, presented at the 48th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Honolulu, Hawaii, Apr. 23-26, 2007.
- 41. J. Young and A. Wilhite. Development of a Lunar Architecture Simulation Environment for Evaluating the Use of Propellant Re-Supply. AIAA-2007-6620, presented at AIAA Modeling and Simulation Technologies Conference and Exhibit, Hilton Head, South Carolina, Aug. 20-23, 2007
- 42. R. Thompson, Z. Krevor, D. Young, and A. Wilhite. A Reduced Order Lunar Lander Model for Rapid Architecture Analysis. AIAA-2007-6623, presented at AIAA Modeling and Simulation Technologies Conference and Exhibit, Hilton Head, South Carolina, Aug. 20-23, 2007
- 43. Arney, D., Hickman, J., Tanner, P., Wagner, J., Wilson, Marc, and Wilhite, A., "Gryphon: A Flexible Lunar Lander Design to Support a Semi-Permanent Lunar Outpost," AIAA Paper 2007-6168, September 2007.
- 44. Krevor, Zachary; Wilhite, Alan. "An Approach for Calculating the Cost of Launch Vehicle Reliability." AIAA 2007-9920, presented at the Space 2007 Conference and Exposition, 18-20 September, 2007.
- 45. Young, James, and Wilhite, Alan. A Value Proposition for Lunar Architectures Utilizing Propellant Re-Supply Capabilities. IAC-07- A3.I.A.19, presented at the 58th International Astronautical Congress, October 2007.
- 46. Wilhite, Alan; Tolson, Robert; Mazur, Marina; Wagner, John: Lunar Module Descent Mission Design. AIAA-2008-6939. Presented at the AIAA/AAS Astrodynamics Specialist Conference and Exhibit, Honolulu, Hawaii, Aug. 18-21, 2008.
- 47. Simon, Matthew; Wilhite, Alan; Jones, Christopher; Rudisill, Marianne. Characterization of Life Support Mass Across Human Mars Mission Design Space and Advanced Life Support Technology Options. AIAA-2008-7922. Presented at the AIAA SPACE 2008 Conference and Exposition, San Diego, California, Sep. 9-11, 2008.
- 48. Jones, Christopher; Wilhite, Alan; Hickman, Joseph. Mars Ascent Vehicle Optimization of Propulsion with In-Situ Propellant Production. IAC-08.D1.2.8, presented at the 59th International Astronautical Congress, October 2008.
- 49. Axdahl, Erik; Crus, Juan; Schoenenberger, Mark; Wilhite, Alan. "Flight Dynamics of an Aeroshell Using an Attached Inflatable Aerodynamic Decelerator." AIAA 2009-2963, presented at the 20th AIAA Aerodynamic Decelerator Systems Technology Conference, 4-7 May, 2009.
- 50. .Arney, Dale and Wilhite, Alan. "Modeling Space Architectures Through Graph Theory."

- AIAA 2009-6598, presented at the Space 2009 Conference and Exposition, 14-17 September 2009.
- 51. Wilhite, Alan; Fischer, Matthew. "Earth-to-Moon Transportation Staging Optimization." AIAA 2009-6564, presented at the Space 2009 Conference and Exposition, 14-17 September 2009.
- 52. Gaebler, John; Lugo, Rafael; Axdahl, Erik; Chai, Patrick; Grimes, Michael; Long, Matthew; Rowland, Robert; Wilhite, Alan. "Reusable Lunar Transportation Architecture Utilizing Orbital Propellant Depots." AIAA 2009-6711, presented at the Space 2009 Conference and Exposition, 14-17 September 2009.
- 53. Wilhite, Alan; Young, David. "A Methodology for Achieving Optimal Reliability and Cost in a Lunar Architecture." AIAA 2009-6565, presented at the Space 2009 Conference and Exposition, 14-17 September 2009.
- 54. Arney, Dale and Wilhite, Alan. "A Flexible Modeling Environment for Evaluating Space System Architectures." AIAA 2010-8107, presented at AIAA Modeling and Simulation Technologies Conference, 2-5 August, 1010.
- 55. Arney, Dale and Wilhite, Alan. "A Modeling Environment for the Optimization of Space Architectures." AIAA 2010-8665, presented at the AIAA Space 2010 Conference and Exposition, 30 August-2 September 2010.
- 56. Simon, Matthew; Wilhite, Alan. "Systems Level Evaluation of Space and Planetary Habitat Interior Layouts." AIAA 2010-8220, presented at the AIAA Modeling and Simulation Technology Conference, 2-5 August, 2010.
- 57. Chai, Patrick; Wilhite, Alan. "Quantifying the Effects of Model Uncertainty on Design Mass Margin in Advanced Earth-to-Orbit Launch Vehicles." AIAA 2010-8631, presented at the AIAA Space 2010 Conference and Exposition, 30August-2 September 2010.
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